



Approval # 2000003

Environmental & Regulatory Services Division
Bureau of Storage Tank Regulation
201 West Washington Avenue
P.O. Box 7837
Madison, WI 53707-7837

Wisconsin COMM 10 Material Approval

Equipment Coolguard-HR-76 Dike Liners

Manufacturer Cooley Engineered Membrane, Inc.
50 Esten Avenue
Pawtucket, Rhode Island 02860

Expiration of Approval: December 31, 2006

SCOPE OF EVALUATION

The Coolguard-HR-76 dike manufactured by Cooley Engineered Membranes Inc. have been evaluated in accordance with **section COMM 10.345(1)(e)** of the Wisconsin Administrative Flammable and Combustible Liquids Code.

DESCRIPTION AND USE

Coolguard-HR-76 liner's material is 36 or 45 mil thick, scrim-reinforced, KEE/PVC geomembrane, which is formulated with DuPont Elavloy (KEE) as a part of tri-polymer alloy. It is manufactured by the extrusion coating Process. The finished membrane shall consist of two (2) plies of terpolymer laminated over one (1) ply of reinforcing scrim. The reinforcing scrim shall be a 6.5 ounce rip-stop woven polyester. The Coolguard fully encapsulate the scrim and extend a minimum of 1/8" beyond the reinforcing scrim roll edges.

Before installing the liner sub-grade surfaces shall be maintained clean, smooth and dry. Sub-grade for all earthen reservoir surfaces shall be compacted to a minimum of 95% of a dry density. Installation is accomplished in the field by the use of hot air, hot

wedge welding or chemical seaming techniques. Compressed air (Lance Method) is used to inspect the welded seams. Seams fabricated at the factory must always outnumber field-fabricated seams by a factor of at least 10 to 1.

TESTS AND RESULTS

Magill Laboratories performed mechanical tests on the liners before and after a 7 day immersion in Gasoline, Jet Fuel and Ethanol at 20 degrees C. The Moisture Vapor Transmission Average is 0.9 grams / Sq. Meter / 24 hrs. In all cases, the test results were within the acceptability limits established by the department.

LIMITATIONS OF APPROVAL

The liners shall be installed in accordance with manufacturer's instructions and **s.COMM 10.345 (1) (e)**.

The liner shall not be exposed, since it has not been tested for fire resistance. A proper protection for the liner can be the soil covering required under section **COMM 10.345 (1) (e) 2**.

Releases of product shall be addressed in accordance with the procedures specified in parts 5 and 6 of **COMM 10** subchapter **VI**. The liner or portions of the liner that came in contact with product shall be replaced when determined to be necessary as a part of the release re-mediation.

Tank foundation designs and any discontinuities in the liner within the diked area shall be shown on plans including the method for assuring an adequate product-tight barrier. Tank foundations shall be designed to minimize the possibility of uneven or excessive settling.

All installation, repair and maintenance of the dike liner shall be performed in accordance with the manufacturer's recommendation and all applicable codes. In addition, a qualified technician shall conduct all necessary maintenance and calibration procedures as recommended by the manufacturer to assure continued and proper operation of the liner. Inspection must be conducted annually by a qualified technician and all respective documents maintained on site.

This approval will be valid through December 31, 2006, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Material Approval Number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Reviewed by: _____
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